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S. HRG. 99-686

Senate Hearing

Before the Committee on Appropriations

Acquired Immune Deficiency Syndrome [AIDS]

Fiscal Year **1987**

99*th* CONGRESS, SECOND SESSION

SPECIAL HEARING

DEPARTMENT OF DEFENSE
Assistant Secretary of Defense (Health Affairs)
U.S. Army Medical Research and Development Command

S181-36

S. HRG. 99-686

ACQUIRED IMMUNE DEFICIENCY SYNDROME [AIDS]

HEARING

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

NINETY-NINTH CONGRESS

SECOND SESSION

SPECIAL HEARING

DEPARTMENT OF DEFENSE

Assistant Secretary of Defense (Health Affairs)
U.S. Army Medical Research and Development Command

Printed for the use of the Committee on Appropriations

U.S. GOVERNMENT PRINTING OFFICE

61-566 O WASHINGTON : 1986

S181-36

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ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS)

THURSDAY, MAY 15, 1986

U.S. SENATE,
SUBCOMMITTEE ON DEFENSE,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, D'Amato, and Sasser.

DEPARTMENT OF DEFENSE

ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS

STATEMENT OF THE HONORABLE WILLIAM MAYER, MD, ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)

HEALTH AFFAIRS

AIDS TESTING

Senator STEVENS. We are here this morning to receive testimony on the Defense Department's policy, testing, and research on acquired immune deficiency syndrome [AIDS]. We will focus particularly on DOD's efforts to address the threat of this devastating disease to our men and women in uniform and to our country's military readiness.

I think we should get the focus of this hearing really clear. This is a hearing that I have scheduled because last year, due to my feeling that our forces must be prepared to deploy worldwide, often to areas where there is little or no medical support and where each service member becomes a possible blood donor in an emergency situation, I requested that Congress add $55.1 million for testing and $40 million for defense-related research into the disease.

ARMY RESEARCH PROGRAM

The research was directed to be performed by the Army because of its unique capabilities and experience in infectious disease detection, prevention, and control.

I do not know about the rest of you, but I remember hearing a story when I was a boy about research of the Army in malaria and yellow fever. It has a history of success in this area that we felt we should man-

date not only the Defense Department's involvement, but that the Army take the lead in using its expertise in this area.

We are now holding this hearing because during the consideration of that request last year, repeatedly we were asked if we have any testimony before our committee and whether we really knew what we were talking about in terms of trying to assure that the military had sufficient funds to be deeply involved in this research and the application of that research to the protection of our military people.

I look forward to the testimony of these two distinguished witnesses, Dr. William Mayer, the Assistant Secretary of Defense for Health Affairs, who, I might add, has been very helpful in working with us on the whole concept of the Department's campaign to reduce the statistics concerning the amount of smoking by our young service people, and Dr. Philip K. Russell, Deputy Commander of the U.S. Army Medical Research and Development Command.

We are in session, as you just heard. I expect there will be others coming and going this morning, gentlemen, but I want to assure you that this hearing is absolutely required if we are going to be able to continue the funding that we have started for your involvement and continued participation in the development of policy, testing, and research on AIDS.

Dr. Mayer, we will be happy to have your statement.

Dr. MAYER. Thank you.

STATEMENT OF DR. MAYER

Good morning, Mr. Chairman. I want to thank you for the great privilege of appearing before this subcommittee on this very important public health problem.

The Department has taken a number of steps to establish and facilitate the development of an acquired immune deficiency syndrome research and development program.

I would like to say that it is a great pleasure for me to be accompanied by probably the most outstanding research scientist in uniform today, Dr. Russell.

Previously, prior to the conference committee's report on the continuing resolutions which directed that we establish a research and development program under the management of my office, steps had been taken by the Department of Defense to protect our military personnel from what we consider to be a serious public health problem—acquired immune deficiency syndrome [AIDS].

The Department of Defense is vitally concerned with protecting all military personnel from the risk of infection with the human T-lymphotropic virus type III (HTLV-III) associated with AIDS, and with providing compassionate counseling and treatment to its victims.

HTLV-III SCREENING MEASURES

Our HTLV-III antibody screening measures have been established to protect individuals who are required to receive essential live virus vaccinations, protect individuals deployable to areas with minimal medical support and severe endemic diseases such as malaria, and to protect the buddy blood donor system which may be required in battlefield or emergency conditions.

However, there remain a number of unanswered questions concerning the threat of AIDS and HTLV-III infection to military readiness. Therefore, an integral part of our comprehensive approach to control of HTLV-III infection is a focused research program that addresses the military unique aspects and outcomes of infection with this virus.

As the lead agency for infectious disease for research—as you well noted, the Army has stood out in infectious disease research for generations—the Army was given the task of administering the AIDS Research Program under the guidance and oversight of my office.

I have established an AIDS Research Policy Coordinating Committee to assist in coordinating the research program within the Department of Defense and to assure that every effort is made to coordinate our efforts with those of the Public Health Service.

GUIDELINES FOR AIDS RESEARCH

On January 16, 1986, I issued guidance for AIDS research in the Department of Defense. This guidance emphasizes the unique military aspects of HTLV-III infection and includes the control of infections in military environments, protection of the military blood supply, and protection of military personnel from unusual risks associated with infection.

I directed that the services take advantage of unique military capabilities and populations to study the epidemiology and natural history of infection, to improve the methods for rapid diagnosis and patient evaluation, to study the immune response to infection in military environments, and to cooperate with the National Institutes of Health to evaluate candidate drugs and vaccines.

PEER REVIEW PROCESS

My staff has worked with the Army to establish a peer review process for civilian contracts and Federal research proposals in support of the DOD AIDS Research Program. The DOD AIDS Research Policy Coordinating Committee held an open meeting on January 7, 1986, to provide guidance on the submission of research proposals.

On March 17 and 18 the Army held the first review of civilian contract and Federal research proposals. The review was carried out under a contract with the American Institute of Biological Sciences, which provided civilian scientists for peer review and summarized the scientific merit of the proposals.

On April 17, 1986, a member of my staff participated in the military relevance review of these proposals. At present 12 proposals have been

approved for both scientific merit and military relevance. A large number of additional requests for funding have been received and another review session has been scheduled for mid June.

With the approved proposals in hand, we are ready to initiate a comprehensive AIDS research program focused on military priorities and in support of the national effort as soon as funds are authorized. To ensure proper continuation of the DOD AIDS Research Program, without interfering with existing high-priority infectious disease programs, I issued a memorandum April 2, 1986, which directs the Army to program for adequate fiscal years 1988-92 funding for the Tri-Service Program.

I have assured the coordination of our research efforts with those of the Public Health Service [USPHS] at a number of levels:

I have encouraged the numerous informal contacts and collaborative efforts which continue between DOD personnel and Public Health Service investigators and planners. This is almost a continuous process.

One of the first efforts of the DOD AIDS Research Policy Coordinating Committee was to meet with representatives of the National Institutes of Health to coordinate our research planning.

At the request of the USPHS AIDS coordinator, official DOD representatives have been nominated to serve on the blood and blood products, epidemiology and disease prevention, psychological and addictive matters, vaccine development and therapy, and education and health promotion USPHS AIDS subgroups.

Additionally, Dr. Walter Dowdle, the current USPHS AIDS coordinator, has been nominated to serve on the Armed Forces Epidemiological Board, our principal civilian advisory group for all infectious disease issues of military importance, including HTLV-III.

It was imperative that the Department move quickly to identify HTLV-III infection among our troops. We have taken decisive action. The initial policy statement, signed by Secretary Weinberger in October 1985, reflects our current understanding regarding the natural history of this disease, the risk of transmission to noninfected personnel, the effect of infected individuals on the function of the unit, and the safety of the blood supply. It has been adopted as interim guidance which is reviewed continually.

POLICY ASPECTS

I will summarize briefly several key aspects of our policy.

The military blood collection organization initiated the screening of blood donations for HTLV-III antibody on July 1, 1985, concurrently with their civilian counterparts.

On August 14, 1985, we required all blood collection operations functioning on military installations, civilian as well as military, to inform the cognizant local military medical authority of any positive findings indicative of the presence of hepatitis-B surface antigen, HTLV-III antibody and syphilis in blood donated by active duty personnel.

Currently, DOD Military Blood Program Office policies and Food and Drug Administration guidelines are followed by the military departments' blood programs and by civilian blood agencies collecting blood on military installations.

In the event that units of blood cannot be screened for infectious agents prior to transfusing in contingency or battlefield situations, the DOD Military Blood Program Office in coordination with the military departments will provide guidance on the buddy donor system to operational units to ensure that potential donors have been screened.

On August 30, 1985, the Deputy Secretary of Defense signed a memorandum requiring all potential accessions to be screened for HTLV-III antibody prior to entry on active duty. Applicants for enlisted service are screened for exposure to HTLV-III at the military entrance processing station or the initial points of entry to military service.

Candidates for officer service are also screened for exposure to HTLV-III antibody—those who screen positive on at least two Food and Drug Administration approved enzyme immunoassay [EIA] seriologic tests and also have a positive immunoelectrophoresis test [western blot]—are not eligible for military service.

SCREENING ORDER PRIORITY

On October 24, 1985, the Secretary of Defense required that active duty and Reserve component military personnel be screened for the presence of HTLV-III antibody using the following priority order:

Individuals serving in or subject to deployment on short notice to areas of the world with a high risk of endemic disease or with minimal existing medical capability. Individuals serving in or pending assignment to all other overseas permanent duty stations. Individuals serving in units subject to deployment overseas. Other individuals or units deemed appropriate by the respective military department. And, all remaining individuals in conjunction with routinely scheduled periodic physical examinations.

Individuals who are antibody positive, but manifest no evidence of progressive clinical illness or immunological deficiency are retained. They receive a comprehensive clinical and immunological evaluation and are counseled on the risks of disease transmission, methods of prevention, and informed that they are ineligible to donate blood.

ANNUAL REEVALUATIONS

Additionally, each such individual will receive a comprehensive reevaluation at least annually. The service Secretaries, in order to protect the health and safety of infected individuals and of other military persons, may limit assignment of such individuals with respect to the nature and location of the duties performed in accordance with operational requirements.

The medical assessment of each exposure to or case of HTLV-III infection includes an epidemiological assessment of the potential transmission of HTLV-III to close personal contacts and family of the patient. This information is vital to provide appropriate preventive medicine counseling and to the continued development of scientifically based information regarding the natural history and transmission pattern of HTLV-III.

Therefore, results obtained from laboratory tests for HTLV-III and information concerning personal drug use or consensual sexual activity disclosed by a service member as part of an epidemiological assessment may not be used against him or her in actions under the Uniform Code of Military Justice, in a line-of-duty determination, or on the issue of characterization in separation proceedings.

Such information may not be used as the basis for separation of the service member except for a separation based upon physical disability or for the convenience of the Government.

Each military medical service will conduct ongoing clinical evaluations of each antibody positive individual's health status at least annually, provide appropriate preventive medicine counseling to individual patients, provide public health education materials to the beneficiary population, conduct longitudinal epidemiologic evaluations of antibody positive individuals, and prepare internal reports to facilitate timely review and reassessment of current policy guidelines.

Review of the natural history and epidemiology of this disease in military populations will provide valuable information to enable us to fine tune Department policy.

Due to the potential impact of HTLV-III transmission on the battlefield through buddy blood transfusions and the worldwide dispersal of our troops with concomitant exposure to diseases not experienced in North America, the Department has taken the lead in disease surveillance and preventive medicine aspects of the natural history of AIDS. We need to know much more about the disease including how it is transmitted, and how it might be controlled.

MONITORING OF INCOMING PERSONNEL

The Department of Defense will not allow the threat of AIDS to go unchecked among military personnel. We have taken decisive action to prevent anyone who has been exposed to HTLV-III from entering the services. We are screening the entire force to identify and track all HTLV-III positives and separate those who evidence progressive clinical illness.

We will review our current policy continually to determine if refinements are needed. We are committed to taking whatever steps are necessary to protect the readiness of our troops.

This concludes my prepared statement. I would be pleased to respond to any questions you might have.

Senator STEVENS. Thank you very much, Dr. Mayer. I will have some questions.

PREPARED STATEMENT

We will insert your prepared statement in the record at this point.

[Dr. Mayer's prepared statement follows:]

PREPARED STATEMENT OF HON. WILLIAM E. MAYER, MD
ASSISTANT SECRETARY OF DEFENSE (HEALTH AFFAIRS)

ACQUIRED IMMUNE DEFICIENCY SYNDROME RESEARCH

I appreciate the opportunity to appear before the Subcommittee of Defense, Committee on Appropriations to discuss the Department of Defense efforts to establish an Acquired Immune Deficiency Syndrome (AIDS) Research and Development Program. These actions were taken in response to the Congressional Conference Report on FY 86 Continuing Resolutions (H.R. No. 99-450), which directed that DoD establish an AIDS Research and Development Program under the management of my office.

Previously steps had been taken by the Department of Defense to protect our military personnel from what we consider to be a serious public health problem - Acquired Immune Deficiency Syndrome (AIDS). The Department of Defense is vitally concerned with protecting all military personnel from the risk of infection with the Human T-Lymphotropic Virus Type III (HTLV-III) associated with AIDS, and with providing compassionate counseling and treatment to its victims. Our HTLV III antibody screening measures have been established to protect individuals who are required to receive essential live virus vaccinations, protect individuals deployable to areas with minimal medical support and severe endemic diseases such as malaria, and to protect the buddy blood donor system which may be required in battlefield or emergency conditions. However, there remain a number of unanswered questions concerning the threat of AIDS and HTLV-III infection to military readiness. Therefore, an integral part of our comprehensive approach to control of HTLV-III infection is a focused research program that addresses the military unique aspects and outcomes of infection with this virus.

As lead Agency for infectious disease research, the Army has

been given the task of administering the AIDS Research Program under the guidance and oversight of my office. I have established an AIDS Research Policy Coordinating Committee to assist in coordinating the research program within the Department of Defense and to assure that every effort is made to coordinate our efforts with those of the Public Health Service. On Janurary 16, 1986 I issued guidance for AIDS research in the Department of Defense. This guidance emphasizes the unique military aspects of HTLV-III infection and includes the control of infections in military environments, protection of the military blood supply, and protection of military personnel from unusual risks associated with infection. I directed that the Services take advantage of unique military capabilities and populations to study the epidemiology and natural history of infection, to improve the methods for rapid diagnosis and patient evaluation, to study the immune response to infection in military environments, and to cooperate with the National Institutes of Health to evaluate candidate drugs and vaccines.

My staff has worked with the Army to establish a peer review process for civilian contracts and Federal research proposals in support of the DoD AIDS Research Program. The DoD AIDS Research Policy Coordinating Committee held an open meeting on Janurary 7. 1986, to provide guidance on the submission of research proposals. On March 17 and 18 the Army held the first review of civilian contract and Federal research proposals. The review was carried out under a contract with the American Institute of Biological Sciences, which provided civilian scientists for peer review and summarized the scientific merit of the proposals. On April 17, 1986, a member of my staff participated in the military relevance review of these proposals. At present twelve proposals have been approved for both scientific merit and military relevance. A large number of additional requests for funding have been received and another review session has been scheduled for mid June. With the approved proposals in hand, we are ready to initiate a comprehensive AIDS

Research Program focused on military priorities and in support of the national effort as soon as the funds are authorized. To ensure proper continuation of the DoD AIDS Research Program, without interfering with existing high priority infectious disease programs, I issued a memorandum on April 2, 1986, which directs the Army to program for adequate FY 88-92 funding for the Tri-Service Program.

I have assured the coordination of our research efforts with those of the Public Health Service at a number of levels:

o I have encouraged the numerous informal contacts and collaborative efforts which continue between DoD personnel and Public Health Service investigators and planners.

o One of the first efforts of the DoD AIDS Research Policy Coordinating Committee was to meet with representatives of the National Institutes of Health to coordinate our research planning.

o At the request of the USPHS AIDS coordinator, official DOD representatives have been nominated to serve on the Blood and Blood Products, Epidemiology and Disease Prevention, Psychological and Addictive Matters, Vaccine Development and Therapy, and Education and Health Promotion USPHS AIDS sub-groups.

o Additionally, Dr. Walter Dowdle, the current USPHS AIDS coordinator, has been nominated to serve on the Armed Forces Epidemiological Board, our principal civilian advisory group for all infectious disease issues of military importance, including HTLV-III.

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transmission to noninfected personnel, the effect of infected individuals on the function of the unit, and the safety of the blood supply. It has been adopted as interim guidance which is reviewed continually. I will summarize briefly several key aspects of our policy.

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On August 30, 1985, the Deputy Secretary of Defense signed a memorandum requiring all potential accessions to be screened for HTLV-III antibody prior to entry on active duty. Applicants for enlisted service are screened for exposure to HTLV-III at the Military Entrance Processing Station or the initial points of entry to military service. Candidates for officer service are screened for exposure to HTLV-III during their pre-appointment or

pre-contract physical examinations. Individuals confirmed as HTLV-III antibody positive - those who screen positive on at least two Food and Drug Administration approved enzyme immunoassay (EIA) serologic tests and also have a positive immunoelectrophoresis test (Western blot) - are not eligible for military service.

On October 24, 1985, the Secretary of Defense required that active duty and reserve component military personnel be screened for the presence of HTLV-III antibody using the following priority order: individuals serving in or subject to deployment on short notice to areas of the world with a high risk of endemic disease or with minimal existing medical capability; individuals serving in or pending assignment to all other overseas permanent duty stations; individuals serving in units subject to deployment overseas; other individuals or units deemed appropriate by the respective Military Department; and, all remaining individuals in conjunction with routinely scheduled periodic physical examinations.

Individuals who are antibody positive but manifest no evidence of progressive clinical illness or immunological deficiency are retained. They receive a comprehensive clinical and immunological evaluation and are counseled on the risks of disease transmission, methods of prevention, and informed that they are ineligible to donate blood. Additionally, each such individual will receive a comprehensive re-evaluation at least annually. The Service Secretaries, in order to protect the health and safety of infected individuals and of other military persons, may limit assignment of such individuals with respect to the nature and location of the duties performed in accordance with operational requirements.

The medical assessment of each exposure to or case of HTLV-III infection includes an epidemiological assessment of the potential transmission of HTLV-III to close personal contacts and family of the patient. This information is vital to provide appropriate

preventive medicine counseling and to the continued development of scientifically based information regarding the natural history and transmission pattern of HTLV-III. Therefore, results obtained from laboratory tests for HTLV-III and information concerning personal drug use or consensual sexual activity disclosed by a service member as part of an epidemiological assessment may not be used against him or her in actions under the Uniform Code of Military Justice, in a Line of Duty determination, or on the issue of characterization in separation proceedings. Such information may not be used as the basis for separation of the Service member except for a separation based upon physical disability or for the convenience of the government.

Each military medical service will conduct ongoing clinical evaluations of each antibody positive individual's health status at least annually, provide appropriate preventive medicine counseling to individual patients, provide public health education materials to the beneficiary population, conduct longitudinal epidemiologic evaluations of antibody positive individuals, and prepare internal reports to facilitate timely review and reassessment of current policy guidelines. Reviews of the natural history and epidemiology of this disease in military populations will provide valuable information to enable us to fine tune Department policy.

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action to prevent anyone who has been exposed to HTLV-III from entering the Services. We are screening the entire force to identify and track all HTLV-III positives and separate those who evidence progressive clinical illness. We will review our current policy continually to determine if refinements are needed. We are committed to taking whatever steps are necessary to protect the readiness of our troops.

This concludes my prepared statement. I would be pleased to respond to any questions you might have.

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DEPARTMENT OF THE ARMY

U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND

STATEMENT OF BRIG. GEN. PHILIP K. RUSSELL, DEPUTY COMMANDER, U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND

OPERATIONAL RESPONSIBILITY FOR AIDS RESEARCH

Senator STEVENS. General Russell, do you have a statement?

General RUSSELL. Yes, I do, Mr. Chairman.

Mr. Chairman, I am Brig. Gen. Philip K. Russell, Deputy Commander of the U.S. Army Medical Research and Development Command, which command has the operational responsibility for AIDS research within the armed services under the general responsiblity of the Army which is lead agent for infectious disease research among the armed services.

I wish to thank you for the opportunity to appear here and provide testimony on the subject of great importance to the Nation, the Army, and of significance to me as a research scientist.

I have submitted a prepared statement which I ask to have inserted in the record. I would like to take this time to emphasize some of the main points I have in the statement.

Senator STEVENS. Your statement will be printed in full. I think many people here are very much interested in your statement.

General RUSSELL. Thank you, sir.

THREAT OF AIDS TRANSMISSION

Epidemic transmission of AIDS throughout much of the world and in this country is a real and a present threat to the readiness of our Armed Forces. Present and future impact of this disease is not precisely known. It is quite clear the threat is growing and will continue to grow until more effective means to stem it are put in place.

Our current assessment of the level of threat has necessitated the actions and policies described by Dr. Mayer to counteract the threat as effectively as possible, given our currently very imperfect state of knowledge. Current knowledge is inadequate to assure absolute safety of the military blood supply which is of extreme importance.

Furthermore, the threat of continued transmission of this disease in the military population has serious implications for military readiness and worldwide deployability.

In addition, we need more accurate information in order to plan for the impact of AIDS on the health care system of the Department of Defense. The effectiveness of our countermeasures to protect the blood

supply, maintain the health of the armed services, and provide optimal medical care will depend in large part on expanding the information available to military and health care planners.

Of major importance is a better assessment of the level of transmission within our military population and in the circumstances surrounding our military population, the need to identify the risk factors most pertinent to our young sexually active and basically very healthy population.

HETEROSEXUAL TRANSMISSION OF AIDS

It is essentially important that we determine the extent of heterosexual transmission of AIDS to and within the military and within the country and the world, for that matter. This is an issue of considerable scientific controversy at present.

There is little doubt that the AIDS epidemic in part of Africa, principally central Africa, is a heterosexually transmitted epidemic. Heterosexual transmission in both directions has been shown to occur.

The major scientific epidemiologic question regards the extent and importance of the heterosexual transmission in determining the relative risk from all transmission mechanisms to and within the military population.

CASE FINDING AND EDUCATION

In order for the military to adopt effective means for countering AIDS transmission, we need a much clearer definition of epidemiological risk factors. Case finding and education are the most important preventive medicine tool at the present time. To be credible and effective, education must be based on the best possible information. Therefore, the military has urgent need to conduct a research program on the epidemiology of AIDS within our population.

Because of the structure of the military, our personnel data bases, our ability to track people, we have an excellent opportunity to contribute to the general body of epidemiologic knowledge, at the same time meeting the military needs.

There are also very important gaps in our knowledge of the progression of the HTLV–III virus infections in otherwise healthy young people. The military screening program plus our health care system offers a superb opportunity to definitively assess current controversial issues on the rate of progression from initial infection to suppression of clinical disease and on the rate of progression of the disease itself.

Understanding the natural history of the disease is essential to the further development of optimal personnel management policies, and medical treatment policies and it provides a sound basis for planning any trials of intervention strategy.

There is a general need for improved serologic tests for epidemiologic and diagnostic purposes. We clearly need better methods for detecting both the virus and antibodies to assure the safety of our blood supply.

NEED FOR NEW DIAGNOSTIC TECHNOLOGIES

I feel that development and assessment of new diagnostic technologies is a necessary and an integral part of the military AIDS Research Program. In addition to research areas which I have described as absolutely essential to the military, there are two research areas in which the military can make a singular contribution to the national effort on AIDS and in doing so provide additional benefits to the infected personnel within the military.

Our capability to identify individuals in early stages of infection and care for them in our hospitals offers an important opportunity to study interjection possibilities. The Army Medical Research Development Command and especially the Walter Reed Army Institute of Research has extensive experience in drug development and drug evaluation.

DRUG TRIALS ON AIDS

We have already conducted drug trials on AIDS in collaboration with the National Cancer Institute, and here I refer to Dr. Redfield's published studies.

In viral chemotherapy we can find an effective and relatively nontoxic drug that if instituted early offers possibilities to significantly alter the course of infection. It may offer the possibility of delaying or even preventing the onset of clinical disease in the infected individuals. Hopefully, it will inhibit the transmission of the virus.

These are theoretical possibilities. If these theoretical possibilities are to be fully explored and appropriately tested, a large national effort is essential. I believe the military can make a major contribution to the national effort in this area working in collaboration with the National Institutes of Health and Center for Disease Control.

We have a very important opportunity to use the unique capacity of the military health care system and the expertise of military investigators in drug development. We can also provide an opportunity for military personnel in the early stages of the infection to participate in an experiment protocol.

Parenthetically, I might add, much of our drug development and expertise has been developed in the field of malaria and in some antiviral drugs such as ribovirn. The traditional research objective of any infectious disease situation is development of an effective vaccine to be used to prevent infection.

DIFFERENCES BETWEEN HTLV-III VIRUS AND HUMAN IMMUNE RESPONSE

The nature of HTLV–III virus and nature of the human immune response to the infection with the virus makes this a formidable task. There are many differences between the HTLV–III virus and the human immune response to that virus and the viruses where we have successfully developed vaccine in the past.

The problem is a very difficult one. I believe it deserves the best possible national effort. Again, with its experienced scientists and successful track record in vaccine development and some unique capability for

evaluation of experimental vaccine, military research can contribute significantly to the national effort toward a vaccine and this can be effectively conducted in conjunction with the National Institutes of Health and Center for Disease Control.

Mechanisms for effective collaboration among the Army Medical Research and Development Command and Walter Reed Army Institute of Research, the National Institute of Allergy and Infectious Diseases, National Cancer Institute, and the Center for Disease Control, most importantly among investigators at the working level, they are in place and working.

Parenthetically, I might add that research in the National Institute of Allergy and Infectious Diseases collaborated on the adeno virus vaccines which were a significant contribution to the health of the military. We are currently collaborating on the development of the genetically engineered malaria vaccine.

MANAGEMENT CHALLENGES TO PROGRAM

In conclusion, I would like to comment that the front end loading of this high dollar program and personnel management restrictions pose significant management challenges. I do not underestimate the magnitude of the problems, but I do believe that the importance of the problems of the military and scientific issues are overriding. I look forward to seeing an effective program in place.

Mr. Chairman, this concludes my testimony. I will be happy to answer any questions.

[The statement of General Russell follows:]

PREPARED STATEMENT OF BRIG. GEN. PHILIP K. RUSSELL

DEPUTY COMMANDER

U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND

Mr. Chairman and Members of the Committee. I am BG Philip K. Russell, Deputy Commander, U.S. Army Medical Research and Development Command. The Command has operational responsibility for AIDS research within the Armed Services under the general responsibility of the Army as lead agency for infectious disease research in the Armed Services. I wish to thank the Committee for the opportunity to appear and provide testimony on this subject of great importance to the Nation and to the Armed Services. I have submitted a prepared statement which I ask to have inserted into the record, and I wish to take this time to emphasize the main points contained in the prepared statement.

Epidemic transmission of AIDS throughout much of the world and in this country is a real and present threat to the readiness of our Armed Forces. The present and future impact of this disease is, at present, not precisely known, but our current assessment has necessitated the actions and policies described by Dr. Mayer to counteract the threat as effectively as possible given our currently imperfect state of knowledge. Current knowledge is inadequate to assure maximum safety of the military blood supply which is of extreme importance, especially in wartime. Furthermore, the threat of continued transmission of this disease in the military population has serious implications for military readiness and worldwide deployability and, in addition, we need more accurate information in order to plan for the impact of AIDS on the health care system of the Department of Defense. The effectiveness of our countermeasures to protect the blood supply, maintain healthy Armed Services, and provide the optimal medical care will depend in large part on expanding the information available to military and health care planners.

Of major importance is a better assessment of the level of transmission within our military population and identification of the risk factors most pertinent to our young, sexually active, and basically very healthy population. It is especially important that we determine the extent of heterosexual transmission of AIDS to and within the military and within the country. This is an issue of considerable scientific controversy at present; however, there is little doubt that the AIDS epidemic in parts of Africa is a heterosexually transmitted epidemic and heterosexual transmission in both directions has been shown to occur. A major scientific question involves the extent and importance of heterosexual transmission and determining the risk from all transmission mechanisms to the military population. In order for the military to adopt effective means for countering AIDS transmission, we need a much clearer definition of the epidemiologic risk factors in our people. Case finding and education are very important preventive medicine tools. To be credible and effective, education must be based on the best possible information.

Therefore, the military has an urgent need to conduct a research program on the epidemiology of AIDS within our population. Because of the structure of the military, our personnel data bases, the ability to track people, we have an excellent opportunity to contribute to the general body of epidemiological knowledge while ... military needs.

There are important gaps in our knowledge of the progression of the HTLV-III infection in otherwise healthy young people. The military AIDS screening program, plus our health care system, offers superb opportunity to definitively assess current controversal issues on the rate of progression from the initial infection to the expression of clinical disease. Understanding the natural history of the disease is essential to the further development of optimal personnel management policies and medical treatment policies.

There is a general need for improved serologic tests for epidemiologic and diagnostic purposes. We also need better methods for detecting both virus and antibody to assure the safety of our blood supply. I feel that development and assessment of diagnostic technology is a necessary integral part of the military AIDS research program.

In addition to the areas which I have described as absolutely essential to the military, there are two research areas in which the military can make a singular contribution to the national effort on AIDS, and in doing so provide additional benefits to the infected personnel within the military. Our capability to identify individuals in early stages of infection, and care for them in our hospital, offers an important opportunity to study intervention possibilities. The Army Medical Research and Development Command, and especially the Walter Reed Army Institute of Research, has extensive experience in drug development and drug evaluation, and we have already conducted drug trials in collaboration with the National Cancer Institute. I refer to Dr. Redfield's studies. Antiviral chemotherapy, if effective and if instituted early, may significantly alter the course of the infection, delay or prevent the onset of disease, and inhibit transmission. If these theoretical possibilities are to be fully exploited and appropriately tested, a large national effort is essential. I believe that the military can make a major contribution to the national effort in this area in collaboration with the National Institutes of Health and the Centers for Disease Control. We have an important opportunity to use the unique capabilities of the military health care system and the expertise of military investigators in drug development. We can also provide an opportunity for military personnel in early stages of the infection to participate in experimental protocols.

A traditional research objective for any infectious disease is the development of an effective vaccine to be used to prevent infection. The nature of the HTLV-III virus and the human immune response to infection with the virus makes this a formidable task but one which deserves the best possible national effort. Again, the military has experienced scientists and a successful track record in vaccine development and some unique capabilities for evaluation of experimental vaccines in our personnel. Military research can contribute significantly to the national effort toward a vaccine, and this can be effectively conducted in conjunction with NIH and CDC. Mechanisms for effective collaboration among USAMRDC, NIAID, NCI, CDC and among investigators at the operational level are in place and working.

In conclusion, I would like to comment that the front-end loading of this high dollar program and personnel restrictions pose significant management challenges. I do not underestimate the magnitude of the problems, but believe that the importance of the military and scientific issues are overriding; and I look forward to seeing an effective program in place. Mr. Chairman, this concludes my testimony. I will be happy to answer any questions.

Senator STEVENS. Thank you very much, General.

We are fortunate you are in the position you are now in in view of your background as the Chief of the Department of Viral Diseases.

Am I right that is where you were at Walter Reed and have been in that position for some time involved in communicable diseases and immunology?

I am delighted to see where you are when you are needed.

Now to mention the turf battle going on up here, the money appropriated last year has been technically called unauthorized. Although the appropriations bill was below the authorization level by some $51 million, there was not a reference to AIDS in the authorization committee report in reference to the medical research money for the Army.

There was an authorization for some $4.8 billion and we appropriated $4.7 billion and we earmarked, as I said, this amount for this program, but it has been declared by the House to be not authorized.

We will settle that little turf battle today or soon. I want to tell you that I have every confidence that this money is going to be provided.

Now, you both mentioned the problem of the rapid buildup of the program. I think this delay in authorization clearance may have some problems for you, General Russell. I would hope, however, that the planning that is underway now will, once the moneys have been released, lead us to a definition of how much moneys will be needed in the out-years.

Now, Dr. Mayer, I know that you have indicated that you directed the Army to develop program and funding levels for that program for the research portion of this concept for 1988 to 1992.

Have you had any indications yet what the levels will be for those out-years?

Dr. MAYER. Not with any precision, sir, because, of course, the amount of progress that is made this year and next will have a strong bearing on the further directions that we take. So, I have not heard back from the services a specific amount.

General Russell, do you have any idea?

General RUSSELL. I do not have those figures.

Senator STEVENS. I do not want to embarrass my new-found friend, Dr. Bill Hazeltine, in the back of the room here, from the Harvard Research Group who has been working on AIDS. Having read his papers, I even went to the extent of attending one of his lectures, as a matter of fact, I am convinced that we are dealing with a plague and it will affect you more seriously than anyone else in the near future.

The sooner we can get the whole program delineated, I think the sooner we will eliminate any skeptics in the Congress concerning the funding levels that will be required to maintain this program at the maximum level you are capable of sustaining. That is my attitude.

I would like to have you tell us what is the maximum program—we do not want to waste the taxpayers' money, but I come from the school that an ounce of prevention is worth a pound of tears. The concept here is to get going on this.

Now, Dr. Mayer, what do you think about the safety of our blood supply now, military blood supply?

Dr. MAYER. I am very comfortable that our military blood supply is completely safe. Our screening which is done according to the rules of the Food and Drug Administration and the guidelines of the Center for Disease Control and our own blood experts are such that the chances of any blood getting into our supply that carries the virus is, for practical purposes, nil.

Senator STEVENS. I am informed there is an incubation period for this infection.

Dr. MAYER. Right.

Senator STEVENS. We do not know how long it is.

Dr. MAYER. Right.

Senator STEVENS. Suppose I am stationed in Germany and I am promiscuous and go out and hit the town and become involved with a local prostitute, or it could be anywhere in the world, in this country, it does not have to be Germany, and I come back and I am in an organization where there is a great drive on to be a blood donor and unbeknownst, I donate that before I even know I have any infection, how are you going to discover that?

Dr. MAYER. By testing the blood which we do very carefully.

Senator STEVENS. How long do you keep it before you break it down and mix it in with the whole blood concept?

How safe is it in terms of the procedures you have established?

I do not know. I am just asking.

Dr. MAYER. I think it is completely safe, sir.

General Russell has a thing to contribute.

General RUSSELL. The general scientific opinion at the present time is that the blood supply in the Army and in the country is as safe as it can possibly be, given our current technology.

You mentioned the point of the infected person who is circulating the virus prior to the time he develops antibodies. If that person becomes a blood donor, it might slip through the screening. It would not be picked up by an antibody screen.

That was the basis for my comment that we in the Army and the country as a whole need some improved technology for screening blood. The technology for detecting virus in blood in mass screening is not available to us at the present time.

I might add that I think the military screening program and our educational efforts, and so forth, give us a higher level of confidence than the general community on the safety of our blood supply. But in biology there are no absolutes, sir.

Senator STEVENS. I understand that and you are to be congratulated for what you have done. I want people involved here, and we have people who report to every Senator on this committee, to understand that there is still a problem here just in the safety of the blood supply alone.

That one unit of blood would be broken down, as I understand, in terms of the process of making plasma, so it might affect a whole series of potential transfusions.

Am I correct?

General RUSSELL. That may be a possibility.

Senator STEVENS. The real thing is that you have as part of your research program dealing with this concept the safety of the blood supply for the military?

General RUSSELL. Yes, we would have, integral to our research program, technology development for detection of virus and antibody and improved methodology.

Senator STEVENS. Dr. Mayer, I appreciate what both you and General Russell have said about the coordination with the Center for Disease Control and NIH. You have your turf problems, too; we all have them.

Are you confident that we have taken the measures that are necessary to avoid any interruptions from, shall we say, a higher source in what we are doing as far as these other agencies getting disturbed at the area you have staked out for application of money that will be available to the Department of Defense in this research program?

Dr. MAYER. Yes, I am completely confident of that, sir. In fact, the amount of interactions among the scientists, as General Russell said, at the working level has been very, very positive so far.

I have every reason to believe that that will continue, both the Health Service and we and the National Institutes of Health are all determined to work collaboratively because it is obvious here is a new scientific challenge, an opportunity to study a new disease where everybody is going to have to pitch in and there are many various aspects to the further research that has to be done.

I suppose what I am saying is that there is really enough for everybody. I do not anticipate from higher level or working level conflicts in turf battles that will in any way impede our progress.

METHODS INHIBITING VIRUS GROWTH

Senator STEVENS. Dr. Russell, you mentioned the role of the Army, the role that the Army could play in developing methods to inhibit the virus to grow.

Am I right?

General RUSSELL. Yes, sir.

Senator STEVENS. There is a possibility of an area you could be involved in which would be unique because of the availability of population that has been tested and that you can observe after testing.

General RUSSELL. That is correct, sir. There are potential drugs out there that we know inhibit the replication of the virus.

If they go through the development process and appear to be competitive candidates for more widespread use, I think it would be most appropriate to use persons identified within the military in the early stages of the infection, before the onset of disease, and test drugs to see whether we can continuously suppress virus replication and, therefore, lead a normal life much longer than otherwise.

It is an exciting opportunity.

Senator STEVENS. Chemoprophylaxis?

General RUSSELL. That is one way of using that term, sir.

Senator STEVENS. That is an area that I think we would be very interested in.

HEPATITIS RESEARCH

The Army has had at Walter Reed some very interesting research accomplishments in other areas that have spilled over into the civilian community. You mentioned you were involved with hepatitis, too.

General RUSSELL. That is true.

Senator STEVENS. Can you tell us a bit about that.

General RUSSELL. We were involved in collaborative research with NIAID in hepatitis B prior to the development of the vaccine with Merck, Sharpe & Dohme.

We are currently involved in testing in human volunteers with hepatitis A vaccine. Hepatitis A is a special military problem in overseas deployment. We use a gamma globulin for prophylaxis where hepatitis A is epidemic to prevent transmission to our troops.

We have developed at Walter Reed the basic research and some developmental work on experimental vaccine. Hepatitis A vaccine is currently undergoing its first trial in volunteers. I have high hopes for that vaccine.

Senator STEVENS. Dr. Mayer, if I understood your testimony correctly, before a person would be refused admission to the military, it would take three different tests.

The first one, a repeat of that first one, and then a separate test to check the accuracy of the first type of test.

Is that right?

Dr. MAYER. Yes, sir, essentially that is true. The first test is repeated if it is positive. After those two positives, a totally different procedure is used, a much more extensive, elaborate and far more reliable test. It is also much, more costly.

If it is positive, then we are absolutely convinced scientifically that the individual has been exposed to the virus, has developed antibodies to it, and at that point, and at that point only, he is considered ineligible for military service. This is a potential recruit or officer candidate.

USE OF WESTERN BLOT TEST

Senator STEVENS. Let us direct our attention to the person who is already in the service and has an annual physical, a routine physical, you are going to be testing those people, too; is that right?

Dr. MAYER. That is correct.

Senator STEVENS. Particularly in areas where there might be higher exposure, higher risk of exposure?

Dr. MAYER. Yes.

Senator STEVENS. What will be the procedure if that person shows up to have a positive test?

Dr. MAYER. Again, if it shows up positive on the first test, then that test is repeated. If it shows up positive on the second, repetition of the first screening, then he or she will be given the more elaborate immunoelectrophoresis or Western blot test.

If that is positive, the individual will then be referred for a very thorough medical evaluation of his total health status, including his immune capability, how many T cells he has, evidences that his immune system is functioning perfectly.

Any compromise of his immune response on the much more elaborate comprehensive health evaluation which will also include standard physical examination in greater detail with much more laboratory work; any indication that the individual is beginning to show signs of active disease, none of our screening tests is a test for disease, it is only a test for the presence of the antibody in the blood, will trigger all these other tests and evaluations according to standard protocol agreed upon by all three services.

If there is evidence of progressive disease, then as in any other chronic and at this point incurable disease, and I say at this point because we hope that will not continue to be the case with AIDS or with any other disease, but at that point he will be referred to a physical evaluation board which is a board of physicians and medical administrators established to determine an individual's actual fitness for duty or eligibility for medical retirement.

Naturally in the course of that process any treatment that is developed that will help will be given to that patient. That is the policy for active duty.

If there is no evidence of immunological compromise, diminished capacity to respond to infection, no clinical signs, no large lymph nodes or unexplained fevers, then the individual will continue on active duty, but becomes tagged in a very highly protected, confidential way and will automatically be reevaluated at least annually, and depending on the judgment of clinicians, could be more often than that.

SPREAD OF DISEASE BY PROSTITUTION

Senator STEVENS. Dr. Russell, the next question may sound strange, but when I first met a statistician at the old security agency, her job was to keep track of the spread through statistics that were available of what we then called the social diseases—gonorrhea and syphilis.

I think the feeling has been that those diseases, venereal diseases are generally spread because of association with prostitutes.

Is there a similar feeling about AIDS as far as military population is concerned?

General RUSSELL. There is little question that prostitutes in large populations, major urban areas and overseas areas, prostitute populations have a relatively high degree of antibody positivity and are presumably infected. That is a very worrisome problem.

We do not at the present time have a good assessment of the level of risk of sexual relations with infected prostitutes. Many of us are very

worried about it. I certainly hope that our epidemiologic research will pin down that data and give us a better assessment of it.

Again, we need the information in order to be credible in our educational process. All we have right now is education. I think the scientific community will argue this for a long time on both sides, the level of risk. The only realistic approach is to go after the epidemiological data in the best ways we have available to us.

HETEROSEXUAL/HOMOSEXUAL TRANSMISSION OF DISEASE

Senator STEVENS. There seem to be some people who feel that this disease is a homosexual disease and not in the heterosexual community.

It is my information that that is fallacious and that we have adequate proof that there is heterosexual transmission of this disease.

Has anything that you have done so far—Dr. Russell, I think I would have to direct this to you—which indicated that this is a homosexual transmission concept and that we need not fear the heterosexual transmission of this disease?

General RUSSELL. That is a raging controversy in the scientific community at the present time. Clearly Dr. Redfield's studies are solid and they clearly indicated heterosexual transmission of the disease.

As I stated in my earlier remarks, the World Health Organization has concluded that the epidemiological transmission of HTLV–III virus in Africa is a heterosexual epidemic.

Therefore, in my view, it would be foolish to assume we are not going to have heterosexual transmission in this country. We are not that different from Africa. One of the questions is the magnitude of the problem. The homosexual epidemic in this country started and moved very fast and involved very high percentages of the population at risk.

I am sure that heterosexual transmission is going to be much slower for a variety of reasons and it is probably less official. I personally believe we are in the early stages of seeing heterosexual transmission. I do not know how fast it is going to go. It will be much slower than the rate of spread in homosexuals, that we are certain of. How fast it is going to be and how extensive it is going to spread, we cannot answer that question.

Again, the need is for extensive epidemiological studies to answer the question and assess the threat.

PROSTITUTE POPULATIONS NEAR U.S. BASES

Senator STEVENS. My staff tells me in conversations prior to the hearing that there is sensitivity as far as the Department and the Army concerning some of the statistics that have come to you so far from examinations of not only in this country but overseas, both of African populations and the prostitute populations around bases.

If that is the case—I do not want to get into a position where we stir up statistics that are not yet mature enough to really draw conclusions from, but I do want to ask you this.

It is my understanding, for instance, that in one very small overseas country, in a very small village we located one prostitute that had AIDS and there is one of our military installations adjacent to that village.

What will be the policy with regard to acquisition of that kind of information? Will part of this program be the attempt to require the testing of these people who are in the vicinity of our bases, whether here or overseas?

We used to do it in terms of venereal diseases. Are we going to extend that policy to the prostitute population in the areas of our troop concentrations?

General RUSSELL. I would rather think that we would work with the public health personnel in the countries where we have servicemen stationed and attempt to work with them to determine the epidemiological situation in that country.

Senator STEVENS. It is more difficult in peacetime, I agree with that. We still have a problem, that is how to acquire the information.

General RUSSELL. I think the Center for Disease Control and the investigators at Walter Reed are used to working with the international health organizations, they are used to working with the public health personnel and infectious disease research scientists in those countries.

We will work very vigorously to get the information through international public health channels. If it is appropriate that we can fund research projects in those countries, perhaps we will examine that option.

SCREENING FOR RECRUITS

Senator STEVENS. There are some statistics that my staff has made available to me that we have about 62,250 recruit applications per month. The screening tests that we have described followed by the Western blot confirmation test have indicated that there have been 494 Western blot positives from 328,096 samples, roughly 1.5 per 1,000 tested in the period from October 1 to March 31.

As you indicated, those that had those positives were denied entrance into the military.

Are the figures for the testing of those within the military yet available?

Dr. MAYER. They are very preliminary, sir. So far they are appearing to be exactly the same as the accession testing.

Senator STEVENS. The testing of people within the military is running roughly at the same level?

Dr. MAYER. Yes.

Senator STEVENS. 1.5 per 1,000?

Dr. MAYER. Approximately; that is true, sir.

Senator STEVENS. Is that breakdown in terms of male and female?

Dr. MAYER. No; we are not far enough along to make any representation of statistical findings among the active duty population with respect to breakdown by sex.

OVERSEAS DUTY FOR SERVICEMEN TESTING POSITIVE

Senator STEVENS. Are those who are positive who are in the service deployable overseas?

Dr. MAYER. That is a decision that is left up to the Secretaries of each of the services. Each service has a policy with respect to deployability of people with AIDS antibodies in their bloodstream.

Senator STEVENS. I think, Dr. Mayer—I have a streak of George Patton in me—you ought to tell the Secretary that people who test positively should not be deployable or their dependents. I see no reason why we should export trouble to the rest of the world. We can take care of these people better here than abroad. I would hope you could develop policy with regard to the departmental wide concept of deployability.

CIVILIAN PERSONNEL OVERSEAS

We have not mentioned the civilians yet. As I understand it, civilian personnel on bases are subject to this kind of test only in the event that they opt to deploy overseas; is that correct?

Dr. MAYER. Actually civilian personnel, whether civilian employees of the Department of Defense or civilian dependents of military persons, are not required to be tested for AIDS, regardless.

Senator STEVENS. Even when they are sent overseas?

Dr. MAYER. That is correct. It is not mandatory for civilians. They may request it and some have just as they can request testing for any legitimate medical problem that they think they might have, but we do not require them to have such testing, nor do we deny employment to a civilian who does not get tested.

That is, it is not a condition of employment or deployment overseas.

Senator STEVENS. That is a sort of double standard, is it not?

Dr. MAYER. The civilian population that goes overseas is not subject to the same kind of stresses and exposure to disease that the troops in the field are. They are also much less likely, if at all likely, to be involved in direct blood transfusion any more than the civilian population in the States.

Senator STEVENS. My statistics before this committee show taxpayers support as many civilians in Western Europe for the Department of Defense budget as military. We have over there roughly the same number of people.

Dr. MAYER. That is correct. Europe is not the primary area of concern. The people being deployed to Europe are not among the highest priority groups for testing as we phase in the testing of all active duty people either.

Senator STEVENS. Those people are primarily single people, the civilian portion of your deployed people in Central Europe.

Dr. MAYER. Civilian employees may be mostly unaccompanied.

Senator STEVENS. That is what I am talking about.

Dr. MAYER. I believe that the number of civilians that you quoted as being approximately equal to the number of military people overseas includes the dependents of the military people.

Senator STEVENS. We have roughly 1.1 million people. There are 360,000 military and an equal number of dependents and about an equal number of civilian employees, some of whom are local in-country people.

Dr. MAYER. Yes.

Senator STEVENS. Which, of course, are not our problem, but what about that? Are the local in-country civilians that are hired on military bases subject to examination?

Dr. MAYER. No, sir; it is not required that they be tested.

Senator STEVENS. That is not within the jurisdiction of this committee perhaps, it might be within the jurisdiction of my other committee. I may have to put on my other hat, the Civil Service Subcommittee, and go into that a bit.

It does seem to me that you are performing a service to these people if you can give them notice early that they have this problem.

Dr. MAYER. No question about that. We agree with that. We discussed this at length with representatives of the civilian work force within the Department of Defense and concluded, at least at this point, I should repeat, that our policies are in a state of flux, they are highly dependent on demonstrable scientific facts about the disease and it was the consensus of all who discussed this very question that you raise that there was not sufficient science available for us to mandate the testing of civilians.

We do make it available to anyone who is eligible for military health care to be tested whenever they ask.

Senator STEVENS. Senator Weicker sent me some questions. He has jurisdiction of the human health side of it. He has been very supportive in terms of his role of availability of money for the research program in general.

WESTERN BLOT TESTING RESULTS

He would like to know if you can tell us what percentage of those people who tested positive on the first test were then given the second test and then the blot test, what percentage of the people who had the blot test were positive as compared to the first test positive?

Dr. MAYER. One hundred percent of the people who were positive on the first test were given a repetition of that first test.

Of all those people who were then tested under the Western blot electroimmunophoresis techniques, I believe that about 20 percent were also positive on the Western blot.

Is that correct?

General RUSSELL. That is correct. A little under 20 percent were Western blot positive for the ELISA's.

Dr. MAYER. If they have had two positive ELISA's and a negative Western blot, they are considered negative.

FOLLOW-ON TESTING FOR NEW RECRUITS

Senator STEVENS. Is there any follow-on of those people who had positive tests on the first two, but not positive on the blot test? Is there any follow-on required, any subsequent retest?

General RUSSELL. If they come into the military, they will automatically be followed up as part of the screening program in the military.

Senator STEVENS. They would be automatically tested?

General RUSSELL. Automatically fall into our testing program.

Senator STEVENS. By annual physicals, you mean?

General RUSSELL. That is right.

Senator STEVENS. The answer really to Senator Weicker is that once you are in the military, this test will be a matter of routine as far as annual physicals or physicals required for deployment overseas; is that right?

Dr. MAYER. That is right.

Senator STEVENS. It is not something that people can just waive and say, "You had it last year, you do not have to have it again"?

Dr. MAYER. No; no telling what the individual has done since last year.

General RUSSELL. We need the annual data to assess the epidemiological risk.

Senator STEVENS. If you have some questions, Senator Sasser, I will be happy to yield to you. I am looking through my schedule here.

Senator SASSER. I really came to listen this morning, Mr. Chairman.

NONADMISSION TO RECRUITS TESTING POSITIVE ON THIRD TEST

Senator STEVENS. Dr. Mayer, you have stated, and I think we all understand, the policy of nonadmission if a person is confirmed positive in the third test.

Dr. MAYER. Yes, sir.

Senator STEVENS. My problem with that really is that when that person is denied entrance in the military, do we offer any kind of counseling or any kind of exit type of instruction to these people who are denied?

Do they fully understand the consequences of that denial?

Dr. MAYER. Absolutely, sir. They are notified of their positivity by registered return receipt mail. They are invited to come in then for a conference with the medical officer, who individually, often with a preventive medicine specialist or infectious disease specialist, will counsel the individual regarding the meaning of the positive results of the test, recommend to the individual various aspects of public health that he or she should be acutely aware of, strongly recommend that the individual seek out his or her own physician or public health official back in the home community.

This is done on an absolutely individual absolutely private, very compassionate, very supporting basis by each of the services.

SERVICE-SPONSORED EDUCATIONAL PROGRAMS ON AIDS

Senator STEVENS. Again, we rely on our own experience. I remember those movies I saw when I was first inducted in the service. I must have seen them two or three times. If anything, that would put the fear of God into you. It was those movies about venereal disease.

Is there going to be a similar kind of educational program within the services concerning AIDS?

Dr. MAYER. We have a joint service committee on exactly the kind of education and public information that is required and at the very outset when AIDS became a matter of concern and public attention, the services in their prevention programs designed to prevent venereal disease incorporated information about AIDS since it is clearly spread by the same methods as other venereal diseases.

Senator STEVENS. I think you two have control over a program that is going to have a substantial impact on young people of this country because whether they are in the service or not—again, from my own experience when I went home and talked to the people who were not in the service and told them what I had seen, I think I made a few believers out of some of them, too.

You have a great deal to do with the impact of AIDS on our population and future population. I commend you.

Mr. Sasser.

STATEMENT OF SENATOR SASSER

Senator SASSER. Thank you very much. I want to commend you, Mr. Chairman, for calling these hearings today. I think these hearings are important to get the information out as to how the Department of Defense is responding to this problem.

I might say that I had a number of questions to ask here today, but the chairman has already covered those questions and the answers have been given by Dr. Mayer and General Russell. I will read those answers with great interest.

I should like to say, Mr. Chairman, it is a pleasure to see Dr. Mayer before this committee today. I am aware of the subject of the hearing regarding AIDS in the military, but I should like to briefly comment on what I perceive to be the accomplishment of Dr. Mayer in the area of quality assurance in the military health care area.

As Dr. Mayer knows, and I think many associated with military medicine know, I have a great interest in providing high quality health care for our military members. I got involved in this whole issue as a result of complaints that were coming from my State, constituents really, who were in the military.

Some of these problems gained great notoriety and publicity, some say more publicity than they deserved at one point, and I am not sure I agree with that, but I share with Dr. Mayer the goal of providing high-quality medical care to our military personnel.

During the past year Dr. Mayer and his staff have made, I think, great strides in restoring confidence in the military health care system. I want to applaud Dr. Mayer for implementing a peer review system that

will monitor quality assurance and be especially vigilant toward cases that involve death to patients in the military medical system.

Additionally, Dr. Mayer has issued a directive requiring all Department of Defense physicians to have a State-approved medical license. Now, I am aware that that does not necessarily assure quality one way or the other and you can have first-rate, top-notch physicians who do not have an approved State medical license, but at least it is prima facie evidence and that is a first-time policy for the military.

I am delighted to see that going forward. These two steps, I think, the peer review system with a monitor quality assurance, requiring of a State medical license, I think, will go a long way toward improving the quality of care as well as the perception of the quality of care being rendered on the part of military personnel and their dependents. I think that is very, very important.

So, I did want to state for the record today, Dr. Mayer, my approval of the steps you have taken so far, to commend you for that and also to applaud the steps being taken by you and your colleagues in the military medical system.

I think you agree with me that our military personnel are entitled to the finest health care. It is a problem many times in dispensing that within the structures of the military with the many moves and other things that are imposed, but I am delighted to see you going forward and doing what is necessary.

Let me just ask two questions that I think you have answered, but I will ask those in the absence of the chairman here.

TOTAL MILITARY PERSONNEL TESTED FOR AIDS

Today how many military personnel have been tested for AIDS?

Dr. MAYER. We have tested among the recruits more than 300,000 people who were entering the service. Among the active duty the numbers are substantially fewer so far because the recruit testing program started out much earlier.

I do not have, but I can find for you for the record, sir, the exact number that we have done and give you the results of that testing.

We have done enough among the active duty people to show that the rate that we are finding of positive test results is approximately the same as among recruits.

Senator SASSER. In a battlefield situation every soldier is perceived, as I understand it, to be a prospective blood donor.

Does that mean that soldiers who tested positive for AIDS will not go into combat or will AIDS soldiers be known to other troops if they are put in combat situations?

Dr. MAYER. The exact policy as to the use of troops or sailors or airmen in combat with respect to their positive findings on an AIDS antibody test, is being developed individually by each service.

I think for practical purposes it can be said that a soldier or sailor or anyone who has a positive test for antibodies is unlikely to be allowed on the battlefield where in rare circumstances his blood might be needed for direct transfusion.

Senator SASSER. Thank you very much, Dr. Mayer.

Dr. MAYER. I want to thank you, Senator Sasser, for your support and your interest in military medicine and your complimentary remarks about what we have tried to do.

We have really plunged ahead in quality assurance. I think I can say without reservation that we are far ahead of the rest of the medical community which is struggling to catch up in assuring that the soldiers and sailors and airmen and marines and their families in this country have the finest medical care that it is possible to give.

Senator SASSER. Thank you.

Senator STEVENS. Thank you, Senator.

Doctor, I do not think I need to ask, but just for the record, it is clear that the Department of Defense money we provided, after Gramm-Rudman, is $37.2 million for this effort, that is solely for this effort?

Dr. MAYER. Yes, sir.

Senator STEVENS. We do not need to make any further restrictions once we get this authorization bubble burst?

Dr. MAYER. That is correct. You may be sure if that is what is given to us, that is exactly and solely what it will be spent for.

Senator STEVENS. Doctor Russell, I am concerned about your comment about people.

I want to congratulate you for the way you are working in the whole contracting process, which is a way of acquiring people, in effect, but what impediments are there now to your being able to get the people you need to develop this program in the time frame that I think is apparent from the congressional action?

General RUSSELL. Basically it is very difficult to bring additional staff onboard with the right qualifications in a very short period of time. Of course, the restrictions on manpower management within the military and the civil service regulations and all that make it a slower process than we like.

We can work through the issue, but getting manpower onboard in the military is always difficult.

TESTING DIFFICULTIES

Senator STEVENS. It may not be possible now, but can you develop for us some sort of outline of those difficulties?

If they are difficulties that we can take care of with regard to temporary waivers, or something, for this program alone, I think we can get that support.

General RUSSELL. We can answer that for the record, sir.

[The information follows:]

MILITARY PERSONNEL REQUIREMENTS

Once the AIDS (HTLV-III) research appropriation is authorized, the Army recognizes that an initial program challenge will be to bring additional qualified professional staff on board in an expeditious manner. Management flexibility, with regard to the selection and assignment of military personnel to AIDS research and development, is

necessarily restricted by the prerequisite military experience required for positions of authority and a limited existing pool of technically qualified personnel. Minimizing the time required to locate, screen, and select the scientific and technical civilian personnel required to implement the Army AIDS research and development plan is, therefore, essential. The best congressional support that can be extended to the Army, concerning civilian manpower management, is to continue the relief from civilian end strength accounting. This affords the maximum amount of management flexibility to accomplish the mission within given resource restrictions.

INTERNATIONAL EFFORTS AT NEW BREAKTHROUGHS

Senator STEVENS. I am sure you are keeping up with developments in terms of the international efforts that are being put forth to try to find some new breakthroughs in this area.

Do you have any feelings about what the role of your people can be in developing any of those breakthroughs for utilization by the military?

Do you have that capability to move forward in vaccines and in the prophylaxis area to follow through on these breakthroughs as they come forth?

General RUSSELL. Sir, if there are scientific breakthroughs either in drugs or potential vaccines, I think the virologic, epidemiologic research in this country will work together and exploit those breakthroughs in the very best manner.

The military can make contributions in that regard because we have some special capabilities that the civilian community does not have. With the kinds of funding we are talking about and good collaboration with the civilian agencies, we will not leave potential breakthroughs unexploited.

Senator STEVENS. I want to try to make sure that we have given you the ability to be an integral part of that overall effort, sort of marking off the area where the military can be most effective and has the most reason to be involved because of the exposure of your military population.

VACCINE DEVELOPMENT

The question to me is whether or not you feel that that vaccine development area, the prophylaxis area, the transmission risk area, are well enough defined so that you can proceed with research effectively and not on the basis of duplicating what is going on elsewhere, but being part of it and contributing to the overall effort.

Am I correct that that can be done by your people?

General RUSSELL. Yes, sir; I believe that the problem of duplication is a very minor one. There are levels of coordinating committees and the scientific community is well attuned to these problems.

I am sure there will be some confirmatory kind of studies, but those are not duplicative in the real sense of the term. I think we can be sure that the Federal dollar is well and wisely spent.

Senator STEVENS. I do not want to seem too much of an ogre, but I do not see this money being spent for care and comfort of those who are in the advanced stages of AIDS.

We think we have started a program which will get you involved in

the outreach, the leading edge of research and in areas that would be most significant to the military, the prevention of transmission, accelerated improved early detection, the whole concept of the protection of the blood supply, the question of vaccines, the chemoprophylaxis concept.

I want you to straighten me out if I am wrong, because that is what I am telling people you can do. Is that correct?

General RUSSELL. That is correct. I do not think there is any danger of mixing Program 6 and Program 8 funds in the Army system. I think the Program 8 medical treatment aspect is adequately funded under the current appropriations bill.

We can use the Program Six money for the targets that we have defined, the research targets.

Senator STEVENS. If I can remove the problem of the authorization for you, Dr. Mayer, how soon can this be underway?

Dr. MAYER. As I mentioned, we have both civilian and military scientific peer review groups that have reviewed already 30 excellent scientific proposals, 12 of which were found to have sufficient scientific merit and military applicability to warrant funds.

We can proceed with almost no delay whatever as soon as the funds are made available. We intend to spend cautiously and wisely, but I believe that we can get underway immediately.

STATISTICS ON AIDS PATIENTS

Senator STEVENS. When can we expect release of the statistics that we have stayed away from today?

Dr. MAYER. On the numbers of cases?

Senator STEVENS. Yes.

Dr. MAYER. Confirmed cases as well as antibody positive cases?

We have given you some numbers based on the 300,000 accessions that we have tested. Within the next 3 to 6 months we will have tested a substantially larger number of people on active duty and those figures will be available to the committee as we develop them, if you so desire.

Senator STEVENS. I have received notice that some other Senators have indicated they wanted to be here. I am through with the questions I have in mind, gentlemen. I am hopeful we will see them here soon.

I could ask you while we are waiting, Dr. Russell, to continue my education, about what you have been doing in the military? Can you tell us any more about what you have done in terms of the research projects?

We discussed hepatitis and we discussed the question of malaria. For instance, one of the things that got me involved in this is that I heard you had a group of primates that were very suitable to being involved in this research project, probably the only one in the country that could be in such circumstances.

Is that true?

General RUSSELL. I believe we have exclusive capability in primate testing.

Senator STEVENS. But the population was unique.

General RUSSELL. Primates, sir? I am sorry, I am unaware of that. We have both at Walter Reed Army Research and the Medical Research Institute of Infectious Diseases at Fort Detrick extensive experience in vaccine research.

In addition to the ones I mentioned, we are working on Rift Valley fever vaccine, genetic recombinant vaccine. We are working on a variety of vaccines against several viruses of interest to the military and overseas deployment, testing dengue fever vaccines, testing on chikungunya vaccine.

We have the largest, most experienced organization in the country in vaccine development.

PUBLISHED FINDINGS

Senator STEVENS. You recently published something, your people and the National Cancer Institute together, a series of findings.

Could you describe those for us? Was that under your jurisdiction?

General RUSSELL. Not at that time, sir. I just reported in this last month.

Senator STEVENS. I was informed that Walter Reed and the National Cancer Institute had documented some relationships with regard to the AIDS virus.

Are you familiar with that?

General RUSSELL. I am not certain what you are referring to, sir.

HETEROSEXUAL TRANSMISSION

Senator STEVENS. Particularly I was interested in the question of heterosexual transmission.

General RUSSELL. Dr. Redfield was coauthor on a paper published in cooperation with Dr. Gallos' laboratory at the National Cancer Institute in which they described cases where there was clear evidence of blood transfusion and infection to one partner and then infection of the wife, I believe, and subsequent congenital transmission of the virus to the child.

That is, I believe, conclusive evidence of heterosexual transmission.

Senator STEVENS. I am still at a loss, Dr. Mayer, how we get to that population that we are talking about and whether we have a responsibility to do it in terms of the dependents of military people.

TESTING OF DEPENDENTS PERSONNEL

Under your current policies these people use military hospitals, do they not, dependents of military personnel?

Dr. MAYER. Yes, sir.

Senator STEVENS. If they have routine physicals, are they going to get the AIDS test?

Dr. MAYER. I would imagine that any patient admitted to one of our hospitals anywhere in the world in which there was any indication whatever of the appropriateness of doing such a test, we would do it. The clinician would decide that.

All we would refrain from doing is mandating that everybody has to come in, line up, and get tested. Partly that is just a reality problem. The logistics involved in testing hundreds of thousands of people are very difficult and this is one of the reasons why in establishing a policy for the testing of all active duty people we set forth a priority order.

There are just so many people capable of giving these kinds of tests. Especially the Western blot is very elaborate and very expensive to do. That is why we said people who are going to remote areas are our first priority and on down the line to just routine annual or periodic physicals.

Those are our first priorities at this point, given our capability for doing the testing and the very substantial amount of money that it is costing.

Ideally, I suppose, it could be held that the whole population should be tested, civilian and military, in or out of the service, in or out of foreign deployed areas, but we have not arrived at that point.

As a matter of fact, we establish our policy of not requiring AIDS testing, antibody testing for civilian employees and dependents.

COST OF THREE-STAGE TESTS

Senator STEVENS. Talking in terms of cost, what does the first test and second test and Western blot test cost?

Dr. MAYER. The first ELISA tests are relatively inexpensive, $3 to $5. But when you get into doing the immunoelectrophoresis, the lowest I have heard is a little less than $100, up to $200 per test.

Senator STEVENS. Confirmation of the two first tests?

Dr. MAYER. Yes, sir.

Senator STEVENS. I am still pursuing this.

DEFINITION OF RISK TO MILITARY PERSONNEL

Have you ever defined the risk, the potential threat to the military population of heterosexual transmission from the nonmilitary population that our people are exposed to?

Dr. MAYER. It is the same risk that our people are exposed to with respect to other venereal diseases.

Senator STEVENS. If that is the case, we have more than a plague, because it seems to me the military population have, in fact, been exposed to more venereal diseases than the civilian population in the past.

Dr. MAYER. Correct.

Senator STEVENS. I remember the statistics from 35 years ago. Those were the statistics then. I do not think they have improved since then, have they?

Dr. MAYER. No; they have not improved.

Senator STEVENS. What we are saying is that if the same holds true for AIDS as was the case in venereal disease, the population of the American society that has the greatest risk is in fact the military population.

Dr. MAYER. I do not think we can say that categorically.

Senator STEVENS. It follows from the venereal disease concept.

Dr. MAYER. Even with venereal diseases, if you take the whole rest of the population versus the military, it might well be said that the military is at greater risk than the whole population taken as a group.

Senator STEVENS. That is what I said.

Dr. MAYER. If you break down the rest of the population into reasonable subgroups, I think an argument might be made.

Senator STEVENS. That those are of greater risk?

Dr. MAYER. Yes.

Senator STEVENS. Senator D'Amato.

Senator D'AMATO. Thank you, Mr. Chairman.

AIDS EFFECT ON DRUG USERS

I congratulate you, Mr. Chairman, for holding this hearing on a most pressing and important issue. The threat and spread of AIDS is reaching epidemic proportions. I have seen it in my own State of New York, particularly in New York City.

In my view, there are various groups in our society, such as intravenous drug users, that are more likely than others to contract and spread AIDS. This is a concern we all share, and our concern is for the protection of all Americans against the ravages of this disease. With respect to military personnel, while it is reported to us that drug use has declined, there remain some that are still using intravenous drugs and are sharing their needles, which is one of the ways by which AIDS is transmitted.

We also know that AIDS can be transmitted through blood transfusions, indiscriminately affecting innocent men, women, and children. The need to combat the spread of, and find a cure for, AIDS is clear. Therefore, we should do all that we can do to support AIDS research and testing when and where possible.

What we do know about AIDS is dwarfed by that which we do not know. For example, Dr. Russell has testified to the need for a much clearer definition of epidemiological risk factors if the military is to adopt effective means for countering AIDS transmission. This and other questions must be answered. He has also testified that the threat of continued transmission of AIDS has serious implications for military readiness and global deployability.

It seems to me that, with respect to the military's AIDS research program, we have a unique opportunity to conduct the necessary testing, bring about the necessary research, and shield our military personnel from the threat of contracting AIDS in the field.

I certainly join the chairman in supporting this appropriation.

Dr. MAYER. Thank you, sir.

Senator STEVENS. Thank you. Delighted you could come.

Gentlemen, I thank you very much. We would urge you to keep the committee informed. If there is anything we can do to remove the road blocks in acquiring the people you need to do this job, let us know.

We are also going to do our utmost to have you have a level of funding approximately what it is now and have that go through a period, as indicated, from now to about at least 1991, 1992.

Perhaps you can have another miracle, Dr. Russell. We would welcome that. I think the world would welcome that. We thank you for your interest.

Dr. Mayer, I thank you for your support. I think that others in your position might have balked at a few meddling Senators and Congressmen telling you what to do. You have approached this on a positive basis and we thank you for that.

Dr. MAYER. Thank you very much, sir.

SUBMITTED QUESTIONS

Senator STEVENS. There will be some additional questions which we will ask you to respond to for the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

Questions Submitted by Senator D'Amato

Question: To what extent has our military been affected by AIDS?

Answer: AIDS has affected the military in the same manner that it has affected the country as a whole. There is concern about an incompletely understood new threat on the part of policy makers, planners, health care providers and the total force. Foremost in our concerns have been the protection of the blood supply, the possible effects on readiness and deployability and the wise counseling and compassionate care of infected individuals.

Results obtained from the screening of blood donors revealed about 0.5 individuals per thousand tested carried HTLV-III antibodies. Results from the screening of applicants for active duty have shown that about 1.5 per thousand were antibody positive. With somewhat over ten percent of the active duty force tested, the preliminary data reveal that the number of antibody positive individuals is also falling in this same order of magnitude. Due to the priorities used for testing it is not yet known if these early figures are representative of the total force. Analysis of the data is awaiting a more complete collection of results.

Question: Do we have a count of the number of cases?

Answer: Because HTLV-III infection leads to a complicated series of stages that for some unknown number culminates in AIDS, it has been difficult to identify the exact number of "cases" in question. Only recently have we established a uniform coding system for HTLV-III infection and a similar coding system is still under study by the Public Health Service. As the patients advance from one stage to the next it is difficult to identify what has been included in the numbers being reported. To the best of our current ability to discern, the number of AIDS and AIDS related complex cases which have been treated in the military hospitals is approximately 300 as of the beginning of this year.

Question: How much do we know about the nature of transmission?

Answer: HTLV-III transmission is the subject of international investigation. We know that the virus can be found in any body fluid that may contain white cells. However, transmission depends on several factors: the virus must be present in the fluid; the virus must be alive and stable; the viable virus must be transmitted to a susceptible host; and finally, the virus must penetrate the host and have access to infectable target cells.

Because the virus is fragile it is susceptible to numerous atmospheric conditions, cleaning agents and sterilizing methods. Therefore, it is commonly believed that the HTLV-III virus can be effectively transmitted only through sexual contact, parenteral exposure to blood or blood products, and from mother to child during the perinatal period. Epidemiological evidence has pointed to male homosexual activities and the sharing of needles and syringes by intravenous drug abusers as the most common modes of transmission in the United States. Perinatal transmission is well documented. Both homosexual and heterosexual transmission has been shown, but female to male transmission is apparently much less efficient and its current and future role in the epidemic spread of the infection is the subject of numerous studies. Transmission by blood sucking insects has been largely ruled out on the basis of the epidemiological data available. Transmission by casual contact is also considered to be of no concern based on the studies of household and health care contacts of AIDS victims. In short, no

evidence exists today for nonsexual, nonparenteral, nonperinatal transmission of the HTLV-III virus.

Question: Which military areas are at greatest risk for the spread of AIDS and what can be done to reduce this risk?

Answer: It is not so much the geographic area as the behavior of the individual that poses a risk for HTLV-III infection. AIDS has been reported from all 50 States, the District of Columbia and Puerto Rico, but the cases are most commonly reported from the coastal urban centers. Internationally, many countries in Europe and central Africa report significant numbers of AIDS cases, while reports from the Pacific basin have been fewer. More countries are joining the list of those reporting transmission as time goes by. The percentage of HTLV-III antibody positive prostitutes in many areas is growing, but the exact risk to their male customers is as yet less than fully understood.

To date our greatest weapon against the transmission of HTLV-III virus is education. Because the risk is closely related to personal behavior, education as to the modes of transmission and risks of infection can reduce the rate of transmission. The Services have each developed major educational programs. The DoD has established an educational coordinating committee and placed a DoD representative on the Public Health Service education committee. In addition to education, a big step toward reducing the risk is to protect the military blood supply. This was the first area in which DoD took action and is the major reason why we have embarked on a Department-wide screening program. Our next best weapon is to place our considerable experience and expertise in drug and vaccine development in full support of the national effort to find new modes of prevention, treatment and cure.

Question: Explain how the Department of Defense research efforts are unique from the AIDS research efforts occurring at the National Institutes of Health.

Answer: Even though the AIDS epidemic has stimulated the most intensive medical research response in history, many questions remain unanswered. Final answers to questions concerned with the protection of the military blood supply, the transmission of HTLV-III virus in military populations, the progress of disease in military personnel and the additional risks posed by the military environment for HTLV-III antibody positive individuals are as yet unknown.

The most unique and valuable resource of the Department of Defense AIDS research program is our capability of identifying HTLV-III infections before the onset of symptoms. This is made possible by our screening program and presents a cohort of individuals in which we may study:

- the natural history of infection
- methods for early diagnosis and mass screening
- the treatment of early infections and the prevention of disease progression
- the early response of the immune system
- new methods for patient evaluation

In addition, the Department of Defense has made its resources available to the National Institutes of Health and the national effort. Our drug compound screening capabilities have been requested by the National Cancer Institute and we intend to cooperate with the National Institute of Allergy and Infectious Diseases in its efforts to test candidate drugs and vaccines. We are also establishing formal coordination with the Veterans

Administration to assure a continuity of care and collaboration in research efforts involving individuals released from active duty.

Question: What kind of coordination takes place between the two [NIH-DoD] research groups?

Answer: By far the most intense coordination occurs with the numerous collaborative efforts that are ongoing at the working level. The Department of Defense Research Policy Committee began very early to coordinate its planning with that of the National Institutes of Health and guidance for the DoD program directs continuing coordination. DoD representatives have been appointed to five Public Health Service (PHS) AIDS Sub-Groups which coordinate the PHS program. The Public Health Service AIDS Coordinator has been placed on the Armed Forces Epidemiological Board's AIDS Sub-Committee. In addition, after numerous multilevel communications between the participants, a Treatment and Research Coordinating Committee is being established with members from the Veterans Administration, the National Institutes of Health and the Department of Defense.

SUBCOMMITTEE RECESS

[Whereupon, at 11:35 a.m., Thursday, May 15, the hearing was concluded and the subcommittee was recessed to reconvene at the call of the Chair.]